

AMENDMENTS TO THE CLAIMS

1-44. (canceled)

45. (currently amended) A system, comprising:

a plurality of audio ports between which audio signal processing of a conference is distributed, wherein each audio port is assigned to one of a plurality of endpoints and each audio port processes input audio signals from its an assigned endpoint and processes output audio signals to be sent to its assigned endpoint; and one or more audio controllers, wherein the one or more audio controllers receive control information from each of the audio ports as derived from the processed input audio signals and provide control instructions to each of the audio ports to control processing of the output audio signals, wherein the audio controller does not otherwise receive or process the audio signals.

46. (previously presented) The system of claim 45, wherein the processing of output audio signals includes mixing of at least one audio signal.

47. (previously presented) The system of claim 45, wherein the processing of input audio signals includes analyzing the input audio signals to derive the control information.

48. (previously presented) The system of claim 45, wherein the processing of input audio signals includes enhancing the input audio signals.

49. (previously presented) The system of claim 45, wherein the one or more audio controllers are centralized and distinct from the plurality of audio ports.

50. (previously presented) The system of claim 46, further comprising a switch that selects which audio signals will be mixed, and that is controlled by the one or more audio controllers.

51. (currently amended) The system of claim 45, wherein processing of output audio signals includes use of an encoder encoding ~~of~~ the output audio signals.

52. (previously presented) The system of claim 51, further comprising a common interface that receives output from the encoder.
53. (previously presented) The system of claim 45, wherein the audio ports further comprise control buffers for storing the control information and the control instructions.
54. (previously presented) The system of claim 45, further comprising a control channel interface for broadcasting the control instructions from the one or more audio controllers to the audio ports.
55. (previously presented) The system of claim 45, further comprising an information channel for broadcasting the control information from the audio ports to the one or more audio controllers.
56. (previously presented) The system of claim 45, wherein the processing of input audio signals includes use of an analyze and enhance unit, wherein the analyze and enhance unit produces the control information.
57. (previously presented) The system of claim 45, wherein the processing of input audio signals includes decoding the input audio signals.
58. (previously presented) The system of claim 45, further comprising an interface common to the audio ports for carrying compressed input audio signals to audio ports.
59. (previously presented) The system of claim 58, wherein the common interface further carries the output audio signals to the endpoints.
60. (currently amended) A system, comprising:
a plurality of audio ports between which audio signal processing of a conference is distributed, wherein each of the plurality of audio ports is assigned to one of a

plurality of endpoints, and each audio port processes input audio signals from its assigned endpoint and processes output audio signals to be sent to its assigned endpoint, each of the plurality of audio ports comprising

a decoder for decoding a compressed audio signal,
an analyzer for deriving control information from the decoded audio signal,
a mixer for mixing audio signals from other audio ports, and
an encoder that encodes the audio signal mixed by the mixer,
an information channel for receiving the control information from the audio ports;
one or more audio controllers for receiving the control information from the
information channel and for deriving mixing control instructions;
a control channel for sending the mixing control instructions to the mixers; and
a system interface for sharing the decoded audio signals between the audio ports.

61. (previously presented) The system of claim 60, further comprising a common interface coupled to the audio ports, the common interface for carrying the compressed audio signals to the decoder and for receiving the encoded audio signals from the encoders.

62. (previously presented) The system of claim 60, further comprising:

a system format encoder between the analyzer and the system interface, wherein the
system format encoder encodes the decoded audio signal with a system format;
and
a system format decoder between the system interface and the mixer, wherein the
system format decoder removes the system formatting.

63. (previously presented) The system of claim 60, wherein the analyzer also enhances the decoded audio signal.

64. (currently amended) A control unit for facilitating multipoint communication between a plurality of endpoints, comprising:

a plurality of audio ports each assigned to one of the plurality of endpoints an endpoint, wherein each audio port processes input audio signals from its assigned

endpoint and processes output audio signals to be sent to its assigned endpoint, and each audio port is capable of:

decoding compressed audio signals from its associated endpoint,
broadcasting the decoded audio signal from its associated endpoint to others
of the plurality of audio ports,
mixing received broadcasted decoded audio signals from others of the
plurality of audio ports, and
compressing the mixed audio signals for output to its associated endpoint; and
at least one audio controller for receiving control information from each of the audio
ports derived from the decoded input audio signals and for providing control
instructions to each of the audio ports to select which of the broadcasted received
decoded audio signals are to be mixed, wherein the audio controller does not
otherwise receive the input audio signals.

65. (previously presented) The control unit of claim 64, wherein the audio ports are further capable of enhancing the decoded audio signal.

66. (previously presented) The control unit of claim 64, wherein the audio port further comprises:

a system format encoder for encoding the decoded audio signal with a system format
prior to broadcasting; and
a system format decoder, wherein the system format decoder removes the system
format from the broadcasted received decoded audio signals prior to mixing.

67. (previously presented) The control unit of claim 64, wherein there is only one audio controller.

68. (previously presented) A control unit for facilitating multipoint communication between a plurality of endpoints, each endpoint being operative to send a compressed input audio signal to the control unit and receive a compressed output signal from the control unit, the control unit comprising:

- a plurality of audio modules, each audio module receiving compressed input audio signals from at least one endpoint and sending compressed output audio signals to at least one endpoint, each audio module including

- at least one audio port, each audio port being assigned to an endpoint within a conference and being operative to handle audio signal processing including decoding of the input audio signal of its assigned endpoint and mixing of the output audio signal to be sent to its assigned endpoint;

- at least one audio controller for receiving control information from each of the plurality of audio ports as derived from the decoded input audio signals and providing to each of the plurality of audio ports control instructions for controlling the mixing; and

- an interface to route the decoded input audio signals between audio modules without passing through the audio controller, wherein the audio controller does not otherwise receive the input audio signals.

69. (previously presented) The control unit of claim 68, wherein the audio port comprises:

- a decoder for decoding the compressed input audio signal of its endpoint;

- an analyzer for assessing the decoded input audio signal and sending the decoded audio signal to the interface;

- a switch that selects from the interface decoded audio signals from a subset of the audio ports;

- a mixer that mixes the selected decoded audio signals; and

- an encoder that encodes an output signal of the mixer to form the output audio signal to be sent to its endpoint.

70. (previously presented) The control unit of claim 69, wherein the analyzer further enhances the decoded audio signal.

71. (previously presented) The control unit of claim 69, wherein the audio port further comprises:

- a system format encoder between the analyzer and the interface, wherein the system format encoder encodes the decoded audio signal with a system format; and
- a system format decoder between the interface and the mixer, wherein the system format decoder removes the system format from the selected decoded audio signals prior to arrival at the mixer.

72. (previously presented) The control unit of claim 68, wherein there is only one audio controller.

73. (currently amended) A method for distributed audio signal processing of a conference between a plurality of audio ports, comprising:

- receiving an audio signal from an endpoint at each of the plurality of audio ports,
wherein each of the audio ports is assigned to one of a plurality of endpoints, and
each audio port processes input audio signals from its assigned endpoint and
processes output audio signals to be sent to its assigned endpoint;
- analyzing the audio signal at each audio port to generate control information;
- broadcasting the audio signals to the plurality of audio ports;
- broadcasting the control information from the audio ports to one or more audio controllers; and
- mixing at each audio port a subset of the broadcasted audio signals in accordance with control instructions from the one or more audio controllers as governed by the control information.

74. (previously presented) The method of claim 73, wherein only one audio controller is used.

75. (previously presented) The method of claim 73, further comprising encoding the mixed audio signals at each audio port.

76. (previously presented) The method of claim 73, further comprising decoding the received audio signals at each audio port.
77. (previously presented) The method of claim 76, wherein decoding proceeds the analysis of the audio signal.
78. (previously presented) The method of claim 73, wherein the received audio signals and mixed audio signals share an interface common to the audio ports.
79. (previously presented) The method of claim 73, wherein broadcasting the audio signals to the plurality of audio ports comprises broadcasting to an interface common to all of the audio ports.
80. (currently amended) A method, comprising:
- receiving a compressed audio signal from an endpoint at each of a plurality of audio ports, wherein each of the audio ports is assigned to one of a plurality of endpoints, and each audio port processes input audio signals from its assigned endpoint and processes output audio signals to be sent to its assigned endpoint;
 - decoding the compressed audio signal at each audio port;
 - analyzing the decoded audio signal and generating control information;
 - broadcasting the decoded audio signals to the plurality of audio ports;
 - broadcasting the control information from the audio ports to one or more audio controllers;
 - mixing at each audio port a subset of the broadcasted decoded audio signals in accordance with control instructions from the one or more audio controllers as governed by the control information; and
 - encoding output of the mixing at each audio port for distribution to at least one endpoint.

81. (previously presented) The method of claim 81, further comprising enhancing the decoded audio signal prior to broadcasting to the plurality of audio ports.